

WE CLAIM:

1. An improvement to a code-division-multiple-access (CDMA) system employing spread-spectrum modulation, with the CDMA system having a base station (BS) with a BS-spread-spectrum transmitter and a BS-spread-spectrum receiver, and a plurality of remote stations, with each remote station (RS) having an RS-spread-spectrum transmitter and an RS-spread-spectrum receiver, the method comprising the steps of:

transmitting from said BS-spread-spectrum transmitter located at said base station, a broadcast common-synchronization channel having a common chip-sequence signal common to the plurality of remote stations, the broadcast common-synchronization channel having a frame-timing signal;

receiving at a first RS-spread-spectrum receiver the broadcast common-synchronization channel, and determining frame timing at said first RS-spread-spectrum receiver from the frame-timing signal;

transmitting from a first RS-spread-spectrum transmitter an access-burst signal, the access-burst signal having a plurality of segments, with each segment having a preamble followed by a pilot signal, with the plurality of segments having a plurality of power levels, respectively;

receiving at said BS spread-spectrum receiver the access-burst signal at a detected-power level;

transmitting from said BS-spread-spectrum transmitter

to said first RS-spread-spectrum receiver, responsive to the access-burst signal, an acknowledgment signal;

receiving at said first RS-spread-spectrum receiver the acknowledgment signal; and

transmitting from said first RS-spread-spectrum transmitter, responsive to the acknowledgment signal, to said BS-spread-spectrum receiver, a spread-spectrum signal having data.

2. The improvement as set forth in claim 1 with the step of transmitting from the first RS-spread-spectrum transmitter the access-burst signal, including the step of transmitting the access-burst signal with the plurality of segments having the plurality of power levels increasing sequentially, respectively.

3. An improvement to a code-division-multiple-access (CDMA) system employing spread-spectrum modulation, with the CDMA system having a base station (BS) and a plurality of remote stations (RS) with each remote station having an RS-spread-spectrum transmitter and an RS-spread-spectrum receiver, the improvement comprising:

a BS spread-spectrum transmitter located at said base station, for transmitting a broadcast common-

0 synchronization channel having a common chip-sequence signal common to the plurality of remote stations, the broadcast common-synchronization channel having a frame-timing signal;

.5 a first RS-spread-spectrum receiver, located at a first remote station of the plurality of remote stations, for receiving the broadcast common-synchronization channel, and determining frame timing at said first RS-spread-spectrum receiver from the frame-timing signal;

0 a first RS-spread-spectrum transmitter, located at said first remote station of said plurality of remote stations, for transmitting an access-burst signal, the access-burst signal having a plurality of segments, with each segment having a preamble followed by a pilot signal, with the plurality of segments having a plurality of power levels, respectively;

5 said BS spread-spectrum receiver for receiving the access-burst signal at a detected-power level;

0 said BS-spread-spectrum transmitter for transmitting to said first RS-spread-spectrum receiver, responsive to receiving the access-burst signal, an acknowledgment signal;

5 said first RS-spread-spectrum receiver for receiving the acknowledgment signal; and

0 said first RS-spread-spectrum transmitter, responsive to the acknowledgment signal, for transmitting to said BS-spread-spectrum receiver, a spread-spectrum signal having data.

4. The improvement as set forth in claim 3 with said first RS-spread-spectrum transmitter including transmitting the access-burst signal with the plurality of segments having the plurality of power levels increasing sequentially,  
5 respectively.

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